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**Ecology of Australian algae.**—The Yan Yean Reservoir, with an area of 1460 acres and an average depth of 24 feet, furnishes part of the water supply for the city of Melbourne, distant about 25 miles. From regular collections made from its waters for a period of 13 months, WEST<sup>17</sup> has studied the composition, distribution, and periodicity of its phytoplankton and its littoral algal flora. The most striking feature of the plankton is the richness of its desmid flora. The desmids reach their dominance during the warm period, from February to May, and their minimum during the succeeding cold months from June to October. During this cold period the crustaceans are dominant. The absence of the usual blue-green algal element at all times of the year is another noteworthy feature of the plankton.

The littoral algal flora is rich in species, contains many interesting types, and exhibits three rather well marked phases during the year. From November to January, with a rising temperature, there is a dominance of the Oedogoniaceae and Zygnemaceae, with an increasing quantity of the Desmidiaceae; these last reach their climax during the following warm months. The cold months of September and October show very little algal life. Of the 300 or more species of algae collected, 14 species and 11 varieties are described for the first time.—GEO. D. FULLER.

**Vegetation of the Kermadec Islands.**—From their position midway between New Zealand and the Polynesian Islands, these small islands of volcanic origin and subtropical climate exhibit many features of botanical interest. Sunday Island, the largest of the group, with an area of about 30 sq. km., has been visited by OLIVER,<sup>18</sup> who spent ten months studying the vegetation. An annual rainfall of about 225 cm., well distributed throughout the year, with the mild climate, produces a forest composed entirely of broad-leaved evergreens, with a conspicuous number of epiphytes. Among the tree members of this formation, two endemic tree ferns (*Cyathea*) are conspicuous, attaining a height of 20 m., and appearing as the dominant members of one of the forest associations. The epiphytes are principally filmy and other ferns. Only 12 of the 114 species of vascular plants are endemic, a small proportion when compared with the flora of other isolated Pacific islands, and this fact, along with certain geologic evidence, leads to the conclusion that the islands are not older than the Pliocene. The relationship of their flora with those of New Zealand, Australia, and Polynesia is traced.—GEO. D. FULLER.

**Vegetation in the Dovrefjeld.**—During a month spent in the upper Driva Valley, the WESTS<sup>19</sup> made an ecological survey of the alpine associations of

<sup>17</sup> WEST, G. S., The algae of the Yan Yean Reservoir, Victoria; a biological and ecological study. Jour. Linn. Soc. 39:1-88. pls. 6. figs. 10. 1909.

<sup>18</sup> OLIVER, REGINALD B., Vegetation of the Kermadec Islands. Trans. New Zealand Inst. 42:118-175. pls. 18-33. 1909.

<sup>19</sup> WEST, W. and G. S., Sketches of vegetation at home and abroad V. The ecology of the upper Driva Valley in the Dovrefjeld. New Phytol. 9:353-374. pls. 3, 4. figs. 23-32. 1910.